

ABSTRACT OF DISCLOSURE

A ball grid array package is manufactured by mounting a semiconductor die to a first surface of a substrate and mounting a die adapter to the semiconductor die. The semiconductor die is wire bonded to ones of conductive traces of the substrate. A collapsible spacer is mounted to the substrate and the substrate is releasably clamped to an upper side of a mold cavity. A heat spreader and at least one collapsible spacer are placed in the mold cavity such that the collapsible spacer is disposed between the heat spreader and the substrate. A molding compound is molded in the mold, thereby molding the semiconductor die, the substrate, the wire bonds, the die adapter, the at least one collapsible spacer and the heat spreader into the molding compound to provide a molded package. A ball grid array is formed on a second surface of the substrate, bumps of the ball grid array being electrically connected to the conductive traces and the integrated circuit package is singulated.